

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-80 (Canceled).

81. (Currently Amended) A dispersion comprising polymer particles, inorganic particles and water, wherein the zeta potential of said polymer particles and the zeta potential of said inorganic particles are of opposite signs, and said polymer particles and said inorganic particles are electrostatically bonded to form composite particles,

wherein said polymer particles have at least one functional group selected from the group consisting of a carboxyl group, an anion of a carboxyl groups, a sulfonic acid group and an anion of a sulfonic acid group, and said inorganic particles are alumina, titania, or combinations thereof, and

wherein a plurality of said inorganic particles are attached to a surface of each of said polymer particles, and a ratio ( $Sp/Si$ ) of a mean particle size of said polymer particles ( $Sp$ ) and a mean particle size of said inorganic particles ( $Si$ ) is from 1 to 40, and  
the mean particle size of the composite particles is 0.1 to 1.0  $\mu m$ .

82. (Previously Presented) The dispersion according to Claim 81, wherein said inorganic particles are alumina, and the pH of said aqueous dispersion is from 2 to 9.

83. (Previously Presented) The dispersion according to Claim 81, wherein said inorganic particles are titania, and the pH of said aqueous dispersion is from 2 to 6.

84. (Previously Presented) The dispersion according to Claim 81, wherein said polymer particles have at least one further functional group selected from the group consisting of an ester group, an amide group, a hydroxyl group and an ether group.

85. (Previously Presented) The dispersion according to Claim 81, wherein a ratio ( $S_p/S_i$ ) of a mean particle size of said polymer particles ( $S_p$ ) and a mean particle size of said inorganic particles ( $S_i$ ) is from 1.5 to 20.

86. (Previously Presented) The dispersion according to Claim 81, wherein a ratio ( $W_p/W_i$ ) of a content of said polymer particles ( $W_p$ ) and a content of said inorganic particles ( $W_i$ ) is from 0.05 to 1.

87. (Previously Presented) The dispersion according to Claim 81, further comprising a surfactant, wherein a content of said surfactant is not greater than 0.15 wt%.

88. (Previously Presented) The dispersion according to Claim 87, further comprising an oxidizing agent, a polyvalent metal ion, or a combination thereof.

89. (Previously Presented) The dispersion according to Claim 88, further comprising an organic acid.

90. (Currently Amended) A dispersion comprising polymer particles, inorganic particles and water, wherein the zeta potential of said polymer particles and the zeta potential of said inorganic particles are of opposite signs, and said polymer particles and said inorganic particles are electrostatically bonded to form composite particles,

wherein said polymer particles have at least one functional group selected from the group consisting of a cation-formable nitrogen-containing group and a cation of a cation-formable nitrogen-containing group, and at least one of said inorganic particles is selected from the group consisting of silica, zirconia and titania, and

wherein a plurality of said inorganic particles are attached to a surface of each of said polymer particles, and a ratio ( $Sp/Si$ ) of a mean particle size of said polymer particles ( $Sp$ ) and a mean particle size of said inorganic particles ( $Si$ ) is from 1 to 40, and the mean particle size of the composite particles is 0.1 to 1.0  $\mu m$ .

91. (Previously Presented) The dispersion according to Claim 90, wherein said inorganic particles are silica, and the pH of said aqueous dispersion is from 2.5 to 8.5.

92. (Previously Presented) The dispersion according to Claim 90, wherein said inorganic particles are zirconia, and the pH of said aqueous dispersion is from 4 to 8.5.

93. (Previously Presented) The dispersion according to Claim 90, wherein said inorganic particles are titania, and the pH of said aqueous dispersion is from 6.5 to 8.5.

94. (Previously Presented) The dispersion according to Claim 90, wherein a ratio ( $Sp/Si$ ) of a mean particle size of said polymer particles ( $Sp$ ) and a mean particle size of said inorganic particles ( $Si$ ) is from 1.5 to 20.

95. (Previously Presented) The dispersion according to Claim 90, wherein a ratio ( $Wp/Wi$ ) of a content of said polymer particles ( $Wp$ ) and a content of said inorganic particles ( $Wi$ ) is from 0.05 to 1.

96. (Previously Presented) The dispersion according to Claim 90, further comprising a surfactant, wherein a content of said surfactant is not greater than 0.15 wt%.

97. (Previously Presented) The dispersion according to Claim 96, further comprising an oxidizing agent, a polyvalent metal ion, or a combination thereof.

98. (Previously Presented) The dispersion according to Claim 97, further comprising an organic acid.

99. (Currently Amended) A dispersion comprising polymer particles, inorganic particles and water, wherein the zeta potential of said polymer particles and the zeta potential of said inorganic particles are of opposite signs, said polymer particles and said inorganic particles are electrostatically bonded to form composite particles,

wherein said polymer particles have at least one functional group selected from the group consisting of a carboxyl group, an anion of a carboxyl groups, a sulfonic acid group and an anion of a sulfonic acid group, and said inorganic particles are alumina, titania, or a combination thereof, and a plurality of said inorganic particles are attached to a surface of each of said polymer particles, and

wherein a ratio ( $Sp/Si$ ) of a mean particle size of said polymer particles ( $Sp$ ) and a mean particle size of said inorganic particles ( $Si$ ) is from 1 to 40, said composite particles are obtained after ultrasonic irradiation treatment or mechanical shear stress treatment with a homogenizer, and a mean particle size of said composite particles is not greater than 1  $\mu m$ .

100. (Previously Presented) A dispersion comprising polymer particles, inorganic particles and water, wherein the zeta potential of said polymer particles and the zeta potential of said inorganic particles are of opposite signs, said polymer particles and said inorganic particles are electrostatically bonded to form composite particles,

wherein said polymer particles have at least one functional group selected from the group consisting of a cation-formable nitrogen-containing group and a cation of a cation-formable nitrogen-containing group, and said inorganic particles are selected from the group consisting of silica, zirconia and titania, and

wherein a plurality of said inorganic particles are attached to a surface of each of said polymer particles, and a ratio ( $Sp/Si$ ) of a mean particle size of said polymer particles ( $Sp$ ) and a mean particle size of said inorganic particles ( $Si$ ) is from 1 to 40, said composite particles are obtained after ultrasonic irradiation treatment or mechanical shear stress treatment with a homogenizer, and a mean particle size of said composite particles is not greater than 1  $\mu m$ .

wherein said polymer particles have at least one functional group selected from the group consisting of cation-formable nitrogen-containing groups and cations of cation-formable nitrogen-containing groups, and said inorganic particles are selected from the group consisting of silica, zirconia and titania.

101. (New) The dispersion according to Claim 81, wherein the mean particle size of the polymer particles and the inorganic particles is 0.01 to 1.0  $\mu m$ .

102. (New) The dispersion according to Claim 90, wherein the mean particle size of the polymer particles and the inorganic particles is 0.01 to 1.0  $\mu m$ .

BASIS FOR THE AMENDMENT

Claims 81-102 are active in the present application. Nonelected Claims 40-43 have been cancelled. Independent Claims 81 and 90 have been amended to limit the particle size of the composite particles to from 0.1 to 1  $\mu\text{m}$ . Support for the amendment is found in the specification on page 17, lines 20-23. Claim 99 has been amended to correct a typographical error. Claims 101 and 102 are new claims. Support for the new claims is found in the specification on page 17, lines 16-19. No new matter is believed to have been added by this amendment.

REQUEST FOR RECONSIDERATION

Applicants thank Examiner Deo for the helpful and courteous discussion of December 17, 2003. During the discussion, the Examiner indicated that an amendment to independent Claims 81 and 90 to limit the mean particle size of the composite particles to from 0.1 to 1  $\mu\text{m}$  may bring the claims into condition for allowance. The Examiner further indicated that new dependent claims further limiting the mean particle size of the inorganic particle and the polymer particle may be entered and allowed pending review of Applicant's written response. Applicants further thank the Examiner for indicating in the Office Action of October 2, 2003, that the subject matter of independent Claims 99 and 100 is allowable. In the indication of allowable subject matter the Examiner noted that the subject matter of Claims 99 and 100 is allowable at least because the prior art applied by the Office does not suggest a mean particle size of a composite particle not greater than 1  $\mu\text{m}$ .

Claims 81 and 90 have been amended herein to limit the mean particle size of the composite particles to from 0.1 to 1  $\mu\text{m}$ . Applicants submit the amendment to the claims obviates the rejections and places all now-pending claims in condition for allowance. Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. § 103(a) and the passage of all now-pending claims to Issue.

New dependent Claims 101 and 102 have been added. The new dependent claims further limit the mean particle size of the inorganic particle and the polymer particle. The new dependent claims are supported by the application as originally filed. The Examiner is requested to kindly enter and allow the new dependent claims upon determining that the subject matter of the amended independent claims is allowable.

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Reply to Office Action of October 2, 2003

The Examiner is requested to kindly contact Applicants' U.S. representative by telephone at the number provided in the signature block of the last page of this response if further issues arise with regard to the entry of the new dependent claims.

Applicants submit the amendment to the claims places all now-pending claims in condition for allowance. Applicants respectfully request the passage of all now-pending claims to Issue.

Respectfully submitted,

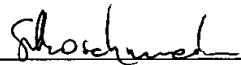
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